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C-A OPERATIONS PROCEDURES MANUAL

8.16.1 Operating the LINAC RF Cooling System

Text Pages 2 through 3

Attachment

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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Approved: _____ **Signature On File** _____
Collider-Accelerator Department Chairman Date

R. Grandinetti

8.16.1 Operating the LINAC RF Cooling System

1. Purpose

To provide operating instructions to the Water Systems technicians for operation of the Linac RF cooling system.

2. Responsibilities

Water Systems technicians start and stop this system.

3. Prerequisites

- 3.1 Startup - Request permission from Linac Control
- 3.2 Verify that cooling tower system is operating
- 3.3 Shutdown - Request permission from Linac control
- 3.4 Qualified and trained Water Systems technician.

4. Precautions

Do not operate pumps without water or with valves closed.

5. Procedure

- 5.1 Verify that water level is within operating limits as marked on the RF expansion tank sight glass.
- 5.2 Open suction and discharge valves on selected pump.
- 5.3 Roll pump shaft by hand.
- 5.4 Reduce set point on pressure controller to 25 - 50 psi.
- 5.5 Turn on RF pump circuit breaker.
- 5.6 Start pump at local start/stop station.
- 5.7 Increase set point on pressure controller to original value (110 psi).
- 5.8 Check system pressure (90 psi), flow (2600 gpm), and temperature (85E F) for proper settings and operation.

- 5.9 Observe pump operation and restore alarms.
- 5.10 Check system resistivity (4 - 8 megohm) and for flow (25 - 50 gpm) through deionizer.
- 5.11 For shutdown, reduce pressure control setting, turn off pump, close suction and discharge valves, and secure alarms.

6. Documentation

- 6.1 Fill in "Status of Equipment" log for Linac RF pump.

7. References

- 7.1 Linac flow diagram, C.T. Main Drawing #2484-402-MI.

8. Attachments

- 8.1 [C-A-OPM-ATT 8.16.1.a, "C-A Water Systems Status of Equipment Log".](#)